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Amendments to the Specification:

Please replace the paragraph beginning at page 5, line 3 as with the following amended paragraph:

Fig. 3 illustrates a programmable gain voltage buffer circuit 300 according to an embodiment. The gain of the programmable gain voltage buffer circuit 300 depends on the total equivalent resistance seen by the output points 336[[334]]A and 336[[334]]B. In this circuit, the primary resistance is provided by resistors (R1) 306 and 308. Transistors (t1) 304, 314 and transistors (t2) 302, 316 are utilized as variable resistances to adjust the effective resistance value seen at the output points 336[[334]]A and 336[[334]]B. For example, when the t1 and t2 resistors 304, 302 and an input transistor 310 on the left side of the circuit are turned on, the equivalent resistance at the output point 336[[334]]A is equal to the resistor 306 in parallel with the inherent resistances of the transistors 302, 304, 310. The equivalent resistance may be expressed as:

$$R_{\text{Equivalent}} = R_{\text{SD transistor 302}} \parallel R_{\text{SD transistor 304}} \parallel R_{\text{resistor 306}} \parallel R_{\text{SD transistor 310}}$$

$$= ((1/R_{\text{SD transistor 302}}) + (1/R_{\text{SD transistor 304}}) + (1/R_{\text{resistor 306}}) + (1/R_{\text{SD transistor 310}}))^{-1}$$